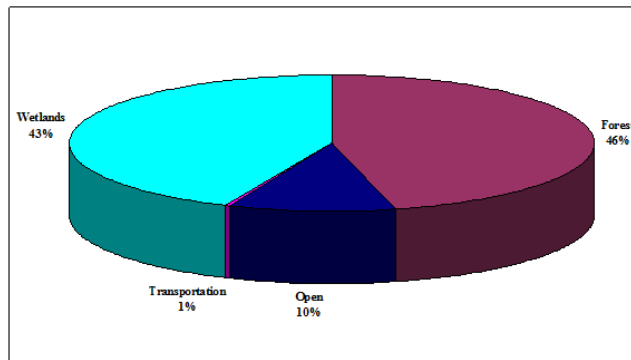
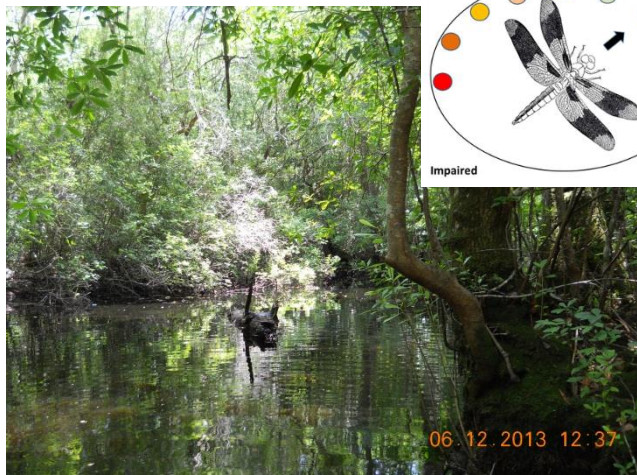


Waterbody: Lost Creek



Basin: Lost Creek

Lost Creek is a tannic, acidic, phosphorus-limited stream located in southwestern Leon County. The Lost Creek water quality station was moved from Bloxham Cutoff to U.S. Forest Road 309 in 2011.

As the following pie chart shows, the majority of the 33,682 acre Lost Creek basin is relatively undeveloped with transportation making up 1% of land use.

Background

Healthy, well-balanced stream communities may be maintained with some level of human activity, but excessive human disturbance may result in waterbody degradation. Human stressors may include increased inputs of nutrients, sediments, and/or other contaminants from watershed runoff, adverse hydrologic alterations, undesirable removal of habitat or riparian buffer vegetation, and introduction of exotic plants and animals. Water quality standards are designed to protect designated uses of the waters of the state (*e.g.*, recreation, aquatic life, fish consumption), and exceedances of these standards are associated with interference of the designated use.

Methods

Surface water was collected to determine the health of Lost Creek and met the requirements of the Florida Department of Environmental Protection (FDEP).

Results

Nutrients

According to FDEP requirements, Numeric Nutrient Criteria (expressed as an annual geometric mean) cannot be exceeded more than once in a three year period. The nutrient thresholds and results are found in Table 1. Total nitrogen levels exceeded state criteria in 2007 and 2014 while phosphorus levels met the criteria for all measured years. Due to hazardous water levels during the third quarter of 2012, staff were unable to collect samples for that quarter. The lack of data means that FDEP requirements for determining numeric nutrient criteria could not be calculated for 2012.

Table1. FDEP's total nitrogen and phosphorus criteria for streams applied to Lost Creek. Results in bold signify exceedances of the State criteria.

Lost Creek	Total Nitrogen Threshold 1.03 mg/L	Total Phosphorus Threshold 0.18 mg/L
2007	1.10	0.03
2008	1.01	0.00
2009	0.78	0.00
2010	0.85	0.02
2011	0.88	0.03
2012	-	-
2013	0.65	0.01
2014	1.16	0.02

Dissolved Oxygen

Lost Creek percent dissolved oxygen (DO) saturation values were below the 34 percent limit during certain events. Staff believes that this is a natural condition for this location, since the creek is a low gradient blackwater stream that drains wetlands.

Other Parameters

Fecal coliforms (420/100 mL) exceeded the state criteria (> 400 in 10% of the samples) during the 2nd quarter of 2014 (Figure 2). Other water quality parameters appear to be normal for the area and no impairments were noted.

Conclusions

With the exception of total nitrogen in 2007 and 2014, Lost Creek met the nutrient thresholds for the Big Bend Bioregion. Staff considers the occasional low DO results a natural condition. Fecal coliforms exceeded the state criteria during the 2nd quarter of 2014.

Thank you for your interest in maintaining the quality of Leon County's water resources. Please feel free to contact us if you have any questions.

Contact and resources for more information

www.LeonCountyFL.gov/WaterResources

[Click here to access the results for all water quality stations sampled in 2014.](#)

[Click here for map of watershed – Sample Site LC at FR309.](#)

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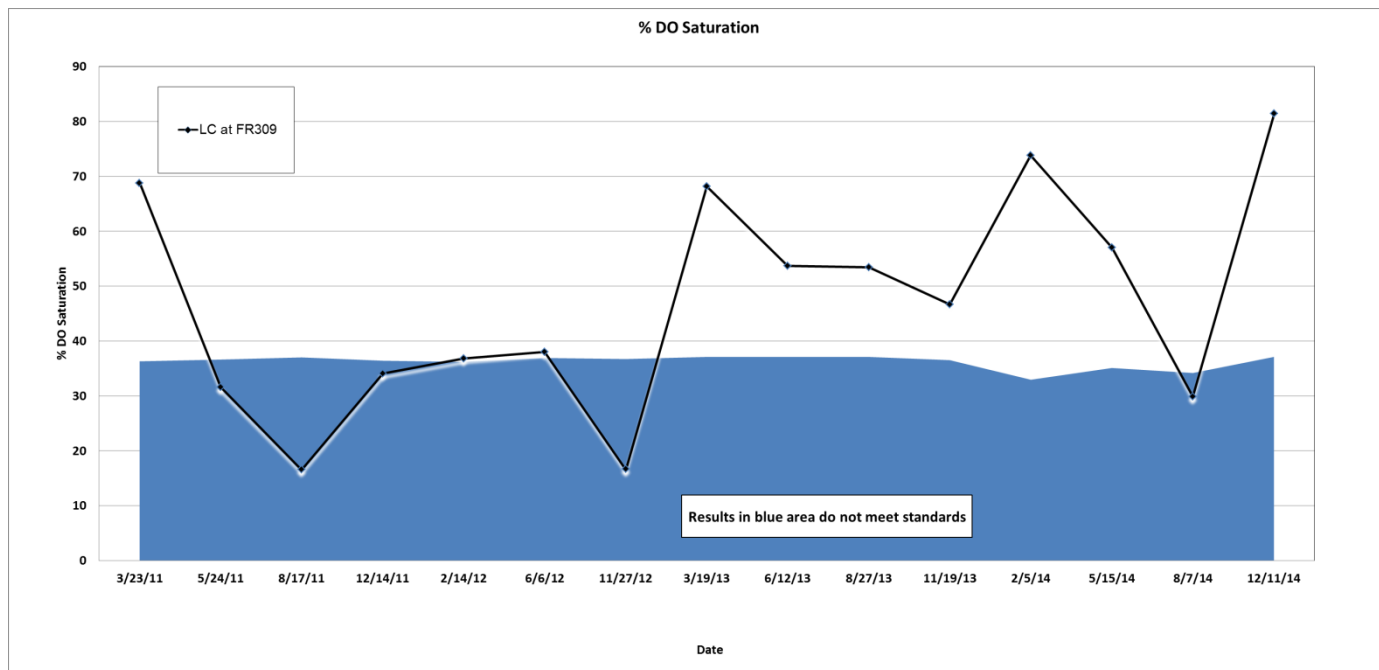


Figure 1. Dissolved Oxygen Percent Saturation results for Lost Creek.

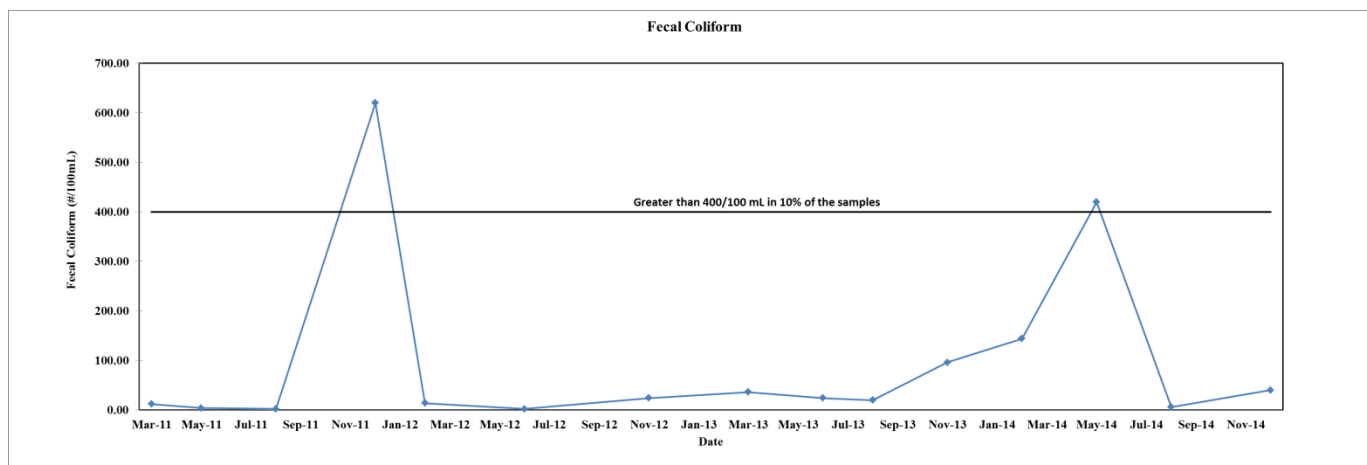


Figure 2. Fecal coliform results for Lost Creek.